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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,041	11/17/2003	Tsz Cheng	BOC9-2003-0036 (405)	2767
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AKERMAN SENTERFITT P. O. BOX 3188 WEST PALM BEACH, FL 33402-3188			EXAMINER TANK, ANDREW L	
			ART UNIT	PAPER NUMBER
			2173	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/715,041

Applicant(s)

CHENG ET AL.

Examiner

Andrew Tank

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,8-13,15-17 and 20-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,8-13,15-17 and 20-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The following action is in response to the Request for Continued Examination (RCE) filed under 37 CFR 1.53(d) for the instant application on October 2, 2007. Applicants have properly set forth the RCE, which has been entered into the application. Accordingly, the amendment of September 17, 2007, has been entered and an examination on the merits follows herewith.
2. Claims 1, 10, 13, 15, and 21 have been directly amended. Claims 1, 3-5, 8-13, 15-17, and 20-27 are pending and have been considered below.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. **Claim 1, 3-5, 8-13, 15-17, and 20-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al., "Tele-Handshake through the Internet", IEEE Workshop on Robot and Human Communication, copyright 1996 IEEE, pages 90-95, hereafter known as "Hashimoto", in view of Cohen et al. (US 7,036,094), hereafter known as "Cohen".

**Claims 1, 10, and 13:** Hashimoto discloses a method, system, and computer-readable medium of communicating physical human interactions over a communications network (page 90 col 2 lines 4-8) comprising:

detecting physical contact with a first model by a first user located at a sending system (page 90 col 2 “Tele-Handshaking System” paragraphs 1 and 2, tactile feedback, Operator A, site A), said first model representing at least a portion of a human body (page 91 Fig. 2), wherein said first model incorporates one or more contact sensors (page 91 Fig. 2);.

generating data from said sensors specifying the physical contact (page 90 “Tele-Handshaking System” paragraph 4);

determining at least one action intended by the generated data (page 90 “Tele-Handshaking System” paragraph 4);

transmitting the determined action over a communications network to a receiving system (page 91 paragraph 1); and

simulating the action by performing said action on a second user at the receiving system using a second model (page 90 “Tele-Handshaking System” paragraph 2), said second model representing at least said portion of said human body (page 91 Fig. 2), wherein said second model incorporates one or more actuators (page 91 Fig. 2).

Hashimoto does not disclose that the generated data used in determining an action to be transmitted and simulated also includes data gathered from detecting a physical movement of the first use using one or more optical sensors, wherein the

physical movement includes at least one of a body movement and a change in facial expression of the first user, and that this additional data causes the second model to activate the detected physical movement. Cohen discloses a system for recognizing behaviors as a combination of gestures identified on various parts of a human body in motion (Abstract lines 1-3). The various gestures include any type of static gestures determined via multiple cameras (col 16 lines 62-63). The gestures are recorded and compared by a behavior program to identify what type of behavior is being presented (col 23 lines 43-47). Therefore, it would have been obvious to one having ordinary skill in the art and the teachings of Hashimoto and Cohen before them at the time the present invention was made, to further expand the physical contact transmission method of Hashimoto to include visual identification of various actions as well. One would have been motivated to do this in order to expand the hand-shake action of Hashimoto to further include other actions from other body parts, as suggested by Cohen (col 16 lines 65-67).

**Claims 3 and 15:** Hashimoto and Cohen disclose the physical movement transmission and replication method and computer-readable medium as in claims 1 and 13 above respectively, but do not explicitly disclose converting the data to markup language formatted data. However, Hashimoto discloses operating the method using the TCP protocol (page 91 3.1). Therefore it would have been obvious to one of ordinary skill in the art and having the teachings of Hashimoto and Cohen before them at the time the present invention was made, to implement the computer methods as modules and to convert them to a mark up language for Internet use. One would have been motivated

to do this in order to use another standardized, reliable computer programming language, as suggested by Hashimoto (page 91 3.1. "we have selected to use reliable TCP protocol), thereby avoiding the cost and time involved with developing one's own programming language, as well as to provide a programming language specifically developed for use with internet based applications.

**Claims 4 and 16:** Hashimoto and Cohen disclose the physical movement transmission and replication mark up language method and computer-readable medium as in claims 3 and 15 above respectively, and Hashimoto further discloses identifying the action from the markup language formatted data in the receiving system (page 90 "Tele-Handshaking System" paragraph 4).

**Claims 5 and 17:** Hashimoto and Cohen disclose the physical movement transmission and replication mark up language method and computer-readable medium as in claims 4 and 16 above respectively, and Hashimoto further discloses wherein the markup language formatted data specifies at least one actuator movement to be implemented by the receiving system and an amount of force to be applied in the at least one actuator movement (page 90 "Tele-Handshaking System" paragraph 4).

**Claims 8 and 20:** Hashimoto and Cohen disclose the physical movement transmission and replication method and computer-readable medium as in claims 1 and 13 above respectively, and Hashimoto further discloses said simulating step further comprising the step of translating the action into instructions for activating at least one actuator (page 91 Fig. 1 on Operator B Site B: "Host Computer – ISA bus - DA"); and activating

the at least one actuator in accordance with the instructions (page 91 Fig. 1 on Operator B Site B: "DA – Linear Motion Motors – Handshake Device").

**Claims 9, 11, 12 and 21:** Hashimoto and Cohen disclose the physical movement transmission and replication method, system, and computer-readable medium as in claims 1, 10 and 13 above respectively, and Hashimoto further discloses the method further comprising:

detecting physical contact of the second model by a second user (page 90 col 2 "Tele-Handshaking System" paragraphs 1 and 2, tactile feedback, Operator B, site B), wherein said second model incorporates one or more sensors (page 91 Fig. 2); generating data from said sensors specifying the physical contact of the second model (page 90 "Tele-Handshaking System" paragraph 4); determining at least one action intended by the second user indicated by the generated data (page 90 "Tele-Handshaking System" paragraph 4); transmitting the determined action over a communications network to the sending system (page 91 paragraph 1); and simulating the action by performing said action on the first user at the sending system using the first model (page 90 "Tele-Handshaking System" paragraph 2), wherein said first model incorporates one or more actuators (page 91 Fig. 2).

**Claims 22 and 25:** Hashimoto and Cohen disclose the physical movement transmission and replication method and computer-readable medium as in claims 1 and 13 above respectively, and Hashimoto further discloses wherein said portion of said human body

includes at least one among a human hand, a human head, a human face, and a human back (page 91 Fig. 2 hand).

**Claims 23 and 26:** Hashimoto and Cohen disclose the physical movement transmission and replication method and computer-readable medium as in claims 1 and 13 above respectively, and Hashimoto further discloses wherein said generated data specifies a time when a force was detected (page 95 Fig. 7 Operator force, x-axis = time in seconds), amount of said force (page 95 Fig. 7 Operator force, y-axis = force in Newtons), and a location on said human body to which said force was applied (page 95 Fig. 7 Tele-handshake test result, hand).

**Claims 24 and 27:** Hashimoto and Cohen disclose the physical movement transmission and replication method and computer-readable medium as in claims 1 and 13 above respectively, and Hashimoto further discloses wherein said action intended by said first user includes at least one among a handshake, an embrace, and a pat on the back (page 90 "Tele-Handshake through the Internet").

### ***Response to Arguments***

5. Applicant's arguments, filed September 17, 2007, with respect to claim 1, 10, and 13 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to



consider these references fully when responding to this action. The documents cited therein teach:

Freeman (US 6,002,808) - pertains to the identification and recognition of body and hand movements from multiple images.

Sakaue et al. (US 6,714,840) - pertains to enhanced interaction between a user and a machine.

Owechko et al. (US 2003/0204348) – pertains to sensor fusion architecture, in particular identifying human actions via optical sensor information.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Tank whose telephone number is 571-270-1692. The examiner can normally be reached on Mon - Thur 0730-1500 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on 571-272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ALT  
December 17, 2007

/Kieu D. Vu/  
Kieu D. Vu  
Primary Examiner